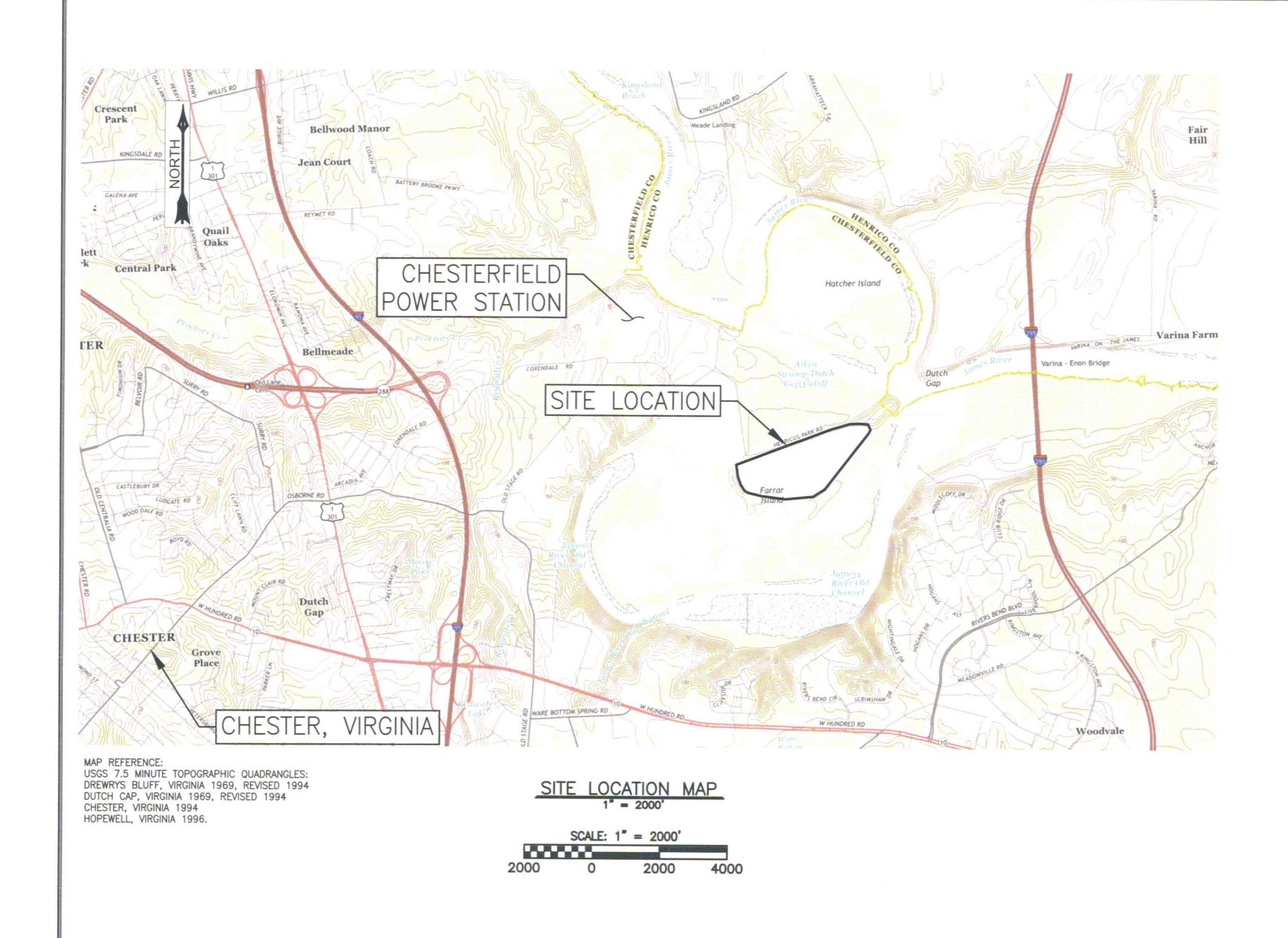
DRAWINGS





	DRA	AWING INDEX
GAI DRAWING FILE NUMBER	SHEET NUMBER	DRAWING TITLE
C150035-00-000-00-C-E1-101	1 OF 10	COVER SHEET
C150035-00-000-00-C-E1-102	2 OF 10	PLAN VIEW - EXISTING CONDITIONS
C150035-00-000-00-C-E1-103	3 OF 10	PLAN VIEW - SUBGRADE PLAN WITH CLOSURE CONSTRUCTION SEQUENCE
C150035-00-000-00-C-E1-104	4 OF 10	UPPER (EAST) POND FINAL CLOSURE ESTIMATED CONFIGURATION
C150035-00-000-00-C-E1-105	5 OF 10	ESTIMATED CONSTRUCTION SEQUENCE - AREA 5
C150035-00-000-00-C-E1-106	6 OF 10	CROSS SECTIONS
C150035-00-000-00-C-E1-107	7 OF 10	CROSS SECTIONS
C150035-00-000-00-C-E1-108	8 OF 10	CAP AND COVER DETAILS
C150035-00-000-00-C-E1-109	9 OF 10	CAP DRAIN, FORCE MAIN, AND PARKING DETAILS
C150035-00-000-00-C-E1-110	10 OF 10	DRAINAGE AND MISCELLANEOUS DETAILS

CHESTERFIELD UPPER (EAST) POND COAL COMBUSTION RESIDUALS (CCR) CLOSURE PLAN

CHESTERFIELD POWER STATION

CHESTERFIELD COUNTY, VIRGINIA

PREPARED FOR:

VIRGINIA ELECTRIC AND POWER COMPANY DOMINION

5000 DOMINION BOULEVARD GLEN ALLEN, VIRGINIA 23060

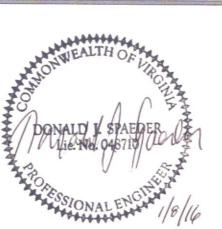
PREPARED BY:

GAI CONSULTANTS, INC. 4198 COX ROAD, SUITE 114 GLEN ALLEN, VA 23060

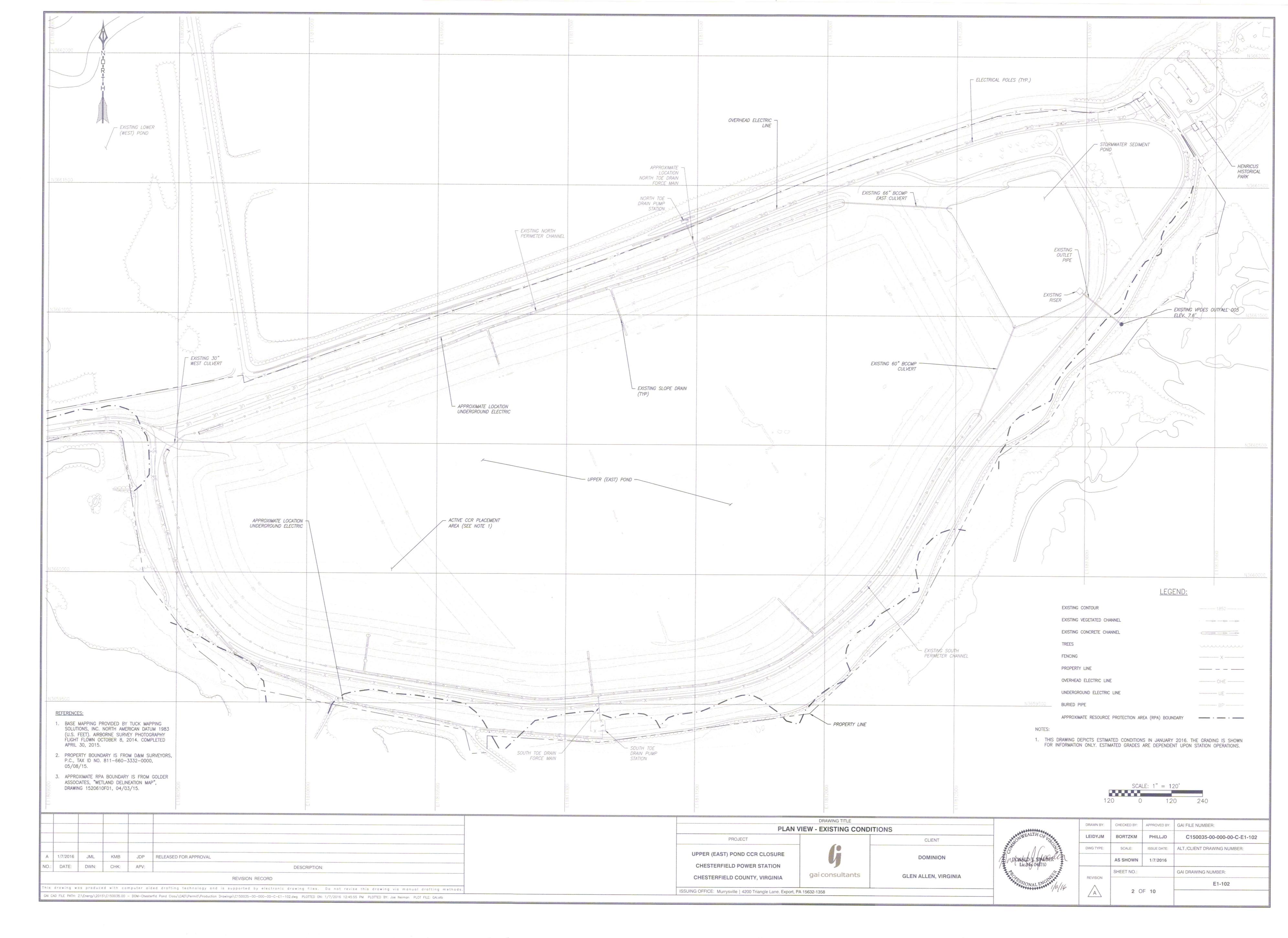
JANUARY 2016

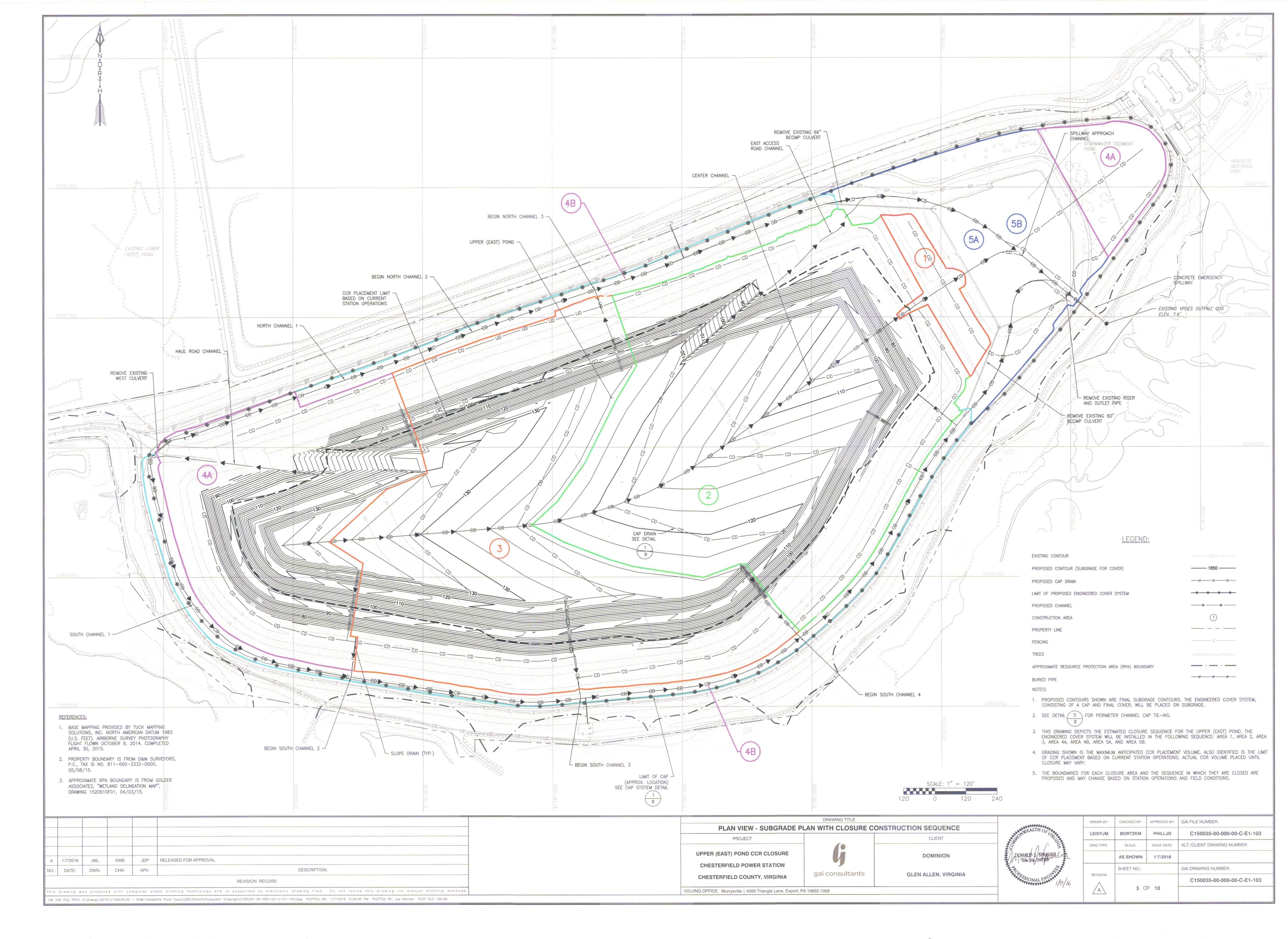
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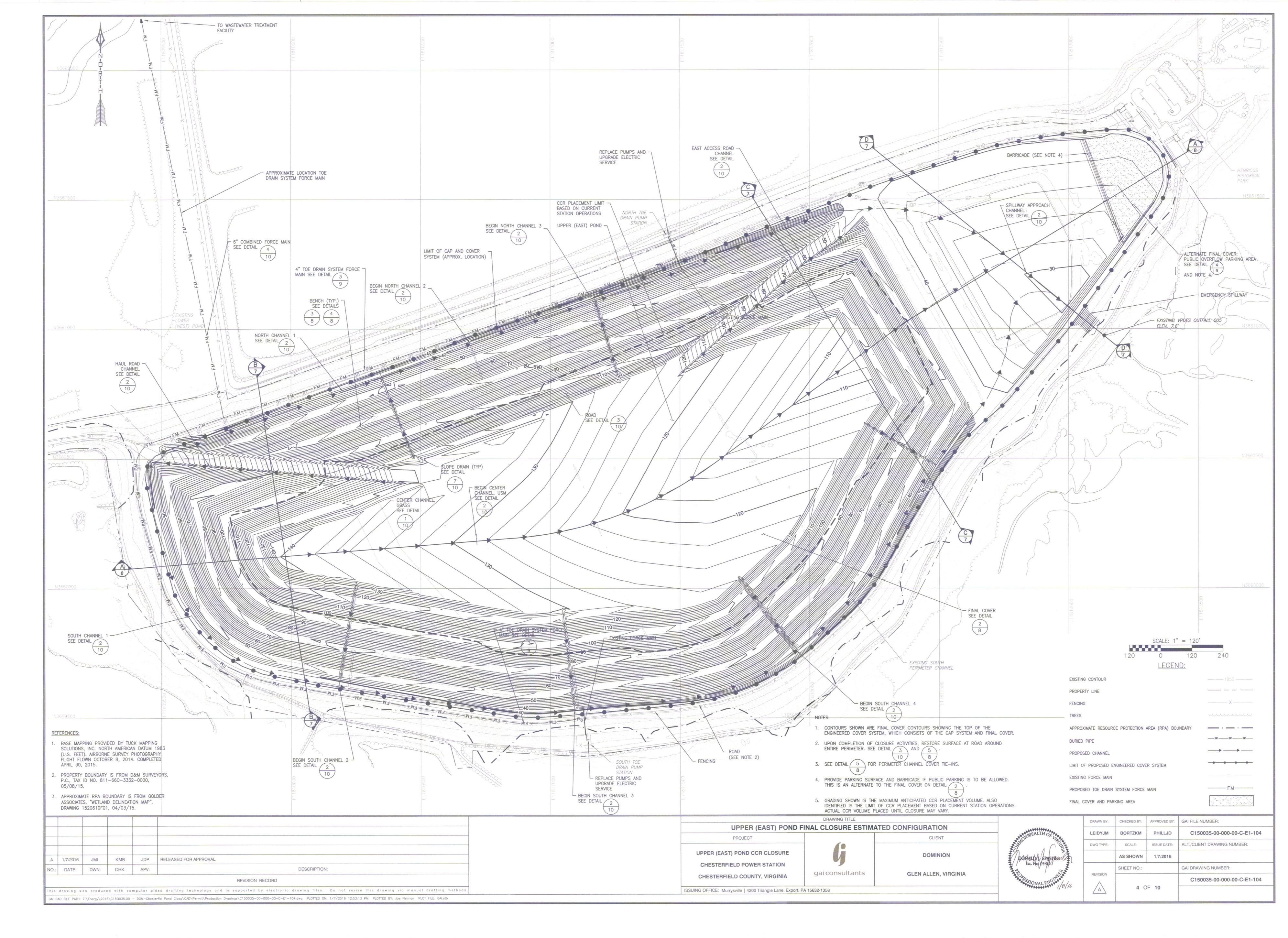
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PROJECT		CLIENT	
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CHESTERFIELD COUNTY, VIRGINIA	gai consultants	GLEN ALLEN, VIRGINIA	1

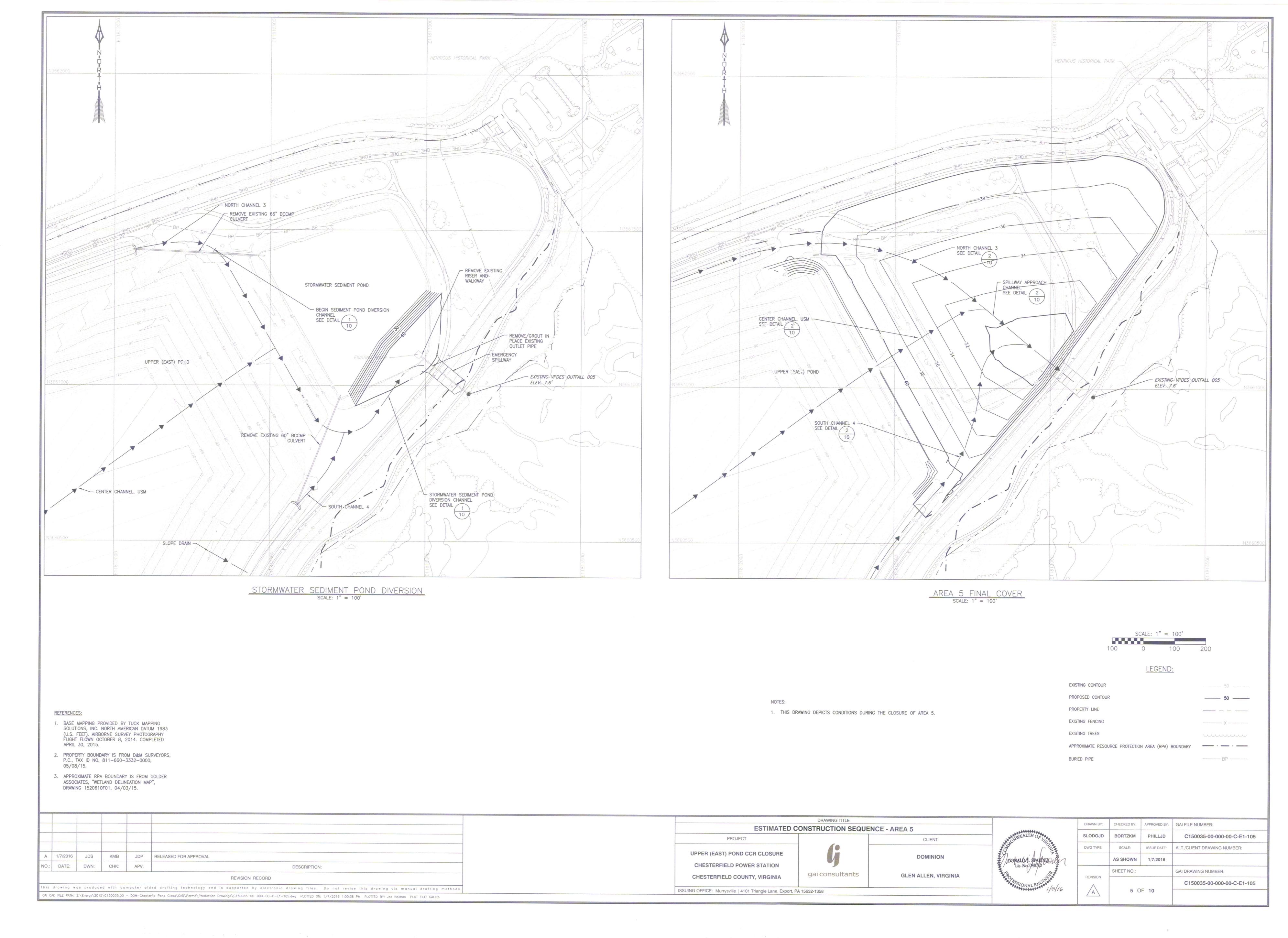


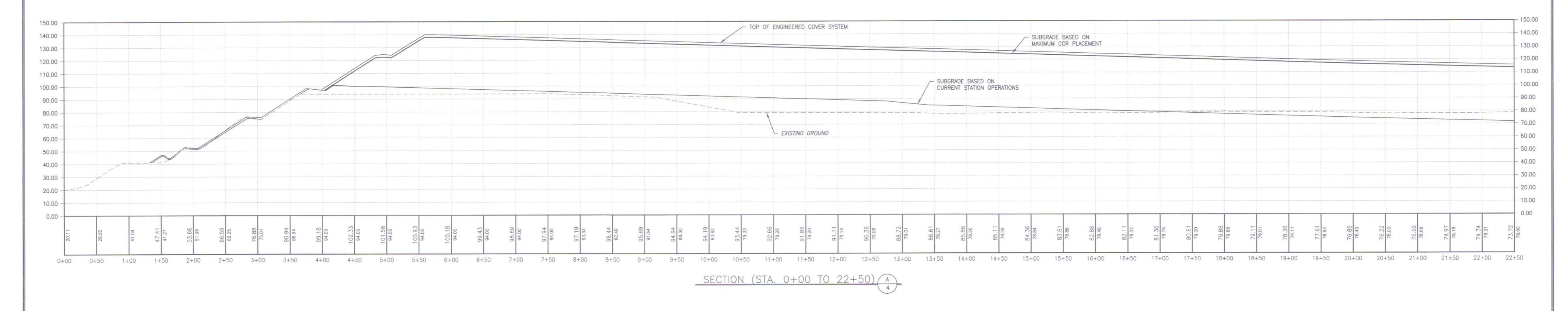
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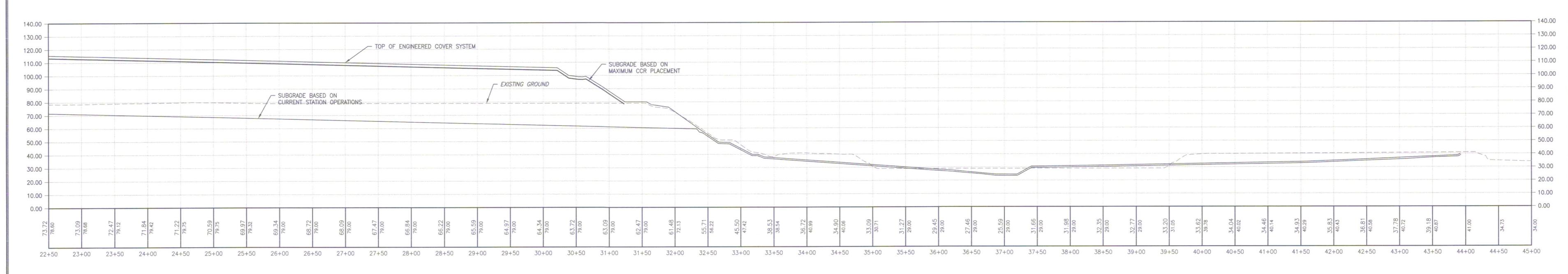










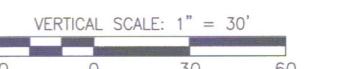


SECTION (STA. 22+50 TO 45+00)

NOTE:

 ELEVATIONS AND GRADES ARE BASED ON ESTIMATED CLOSURE CONDITIONS. FINAL ELEVATIONS MAY VARY BASED ON ACTUAL VOLUME OF CCR PLACED TO CLOSURE.

HORIZONTAL SCALE: 1" = 60'



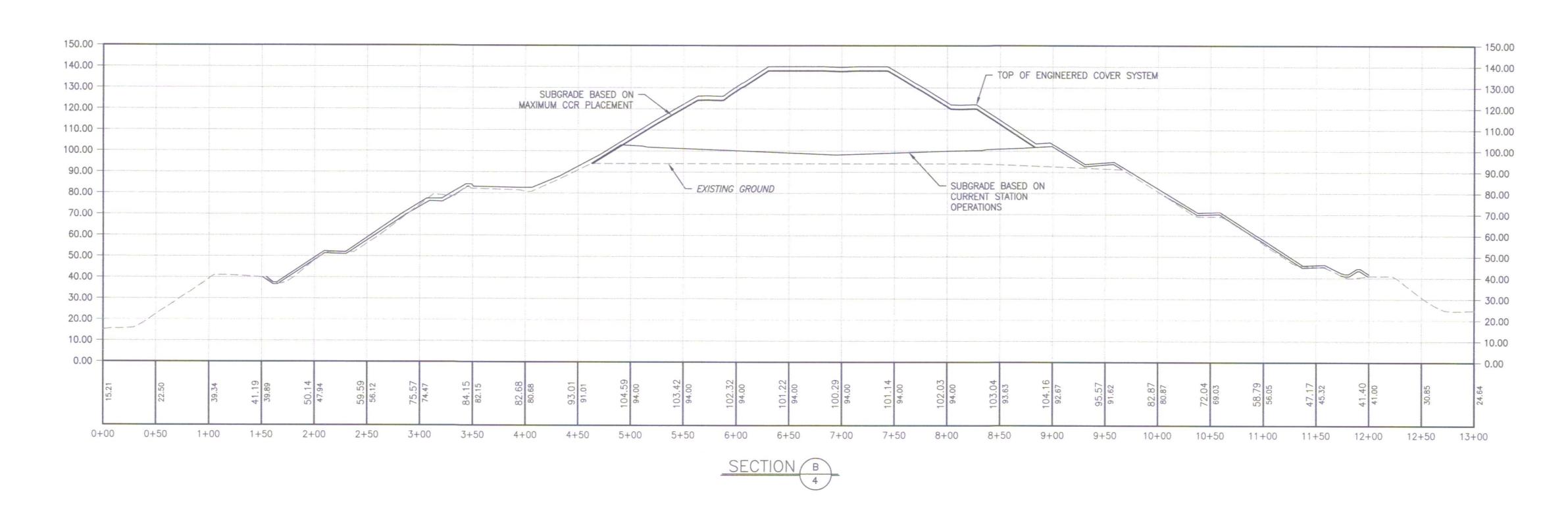
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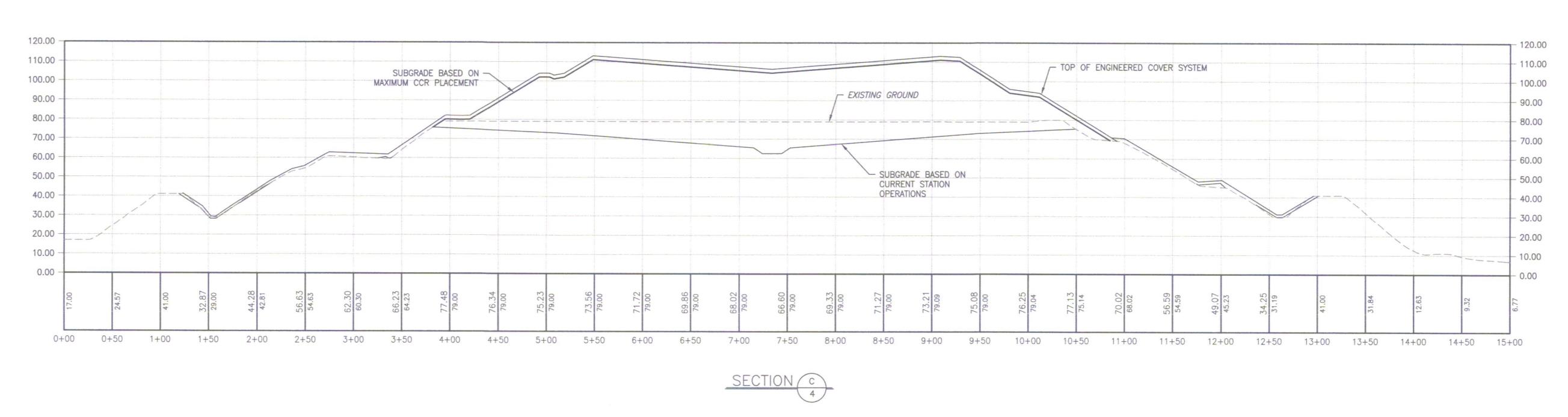
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PROJECT		CLIENT
UPPER (EAST) POND CCR CLOSURE CHESTERFIELD POWER STATION	G	DOMINION
CHESTERFIELD COUNTY, VIRGINIA	gai consultants	GLEN ALLEN, VIRGIN
ISSUING OFFICE: Pittsburgh 385 E. Waterfront Drive, Home	estead, PA 15120	

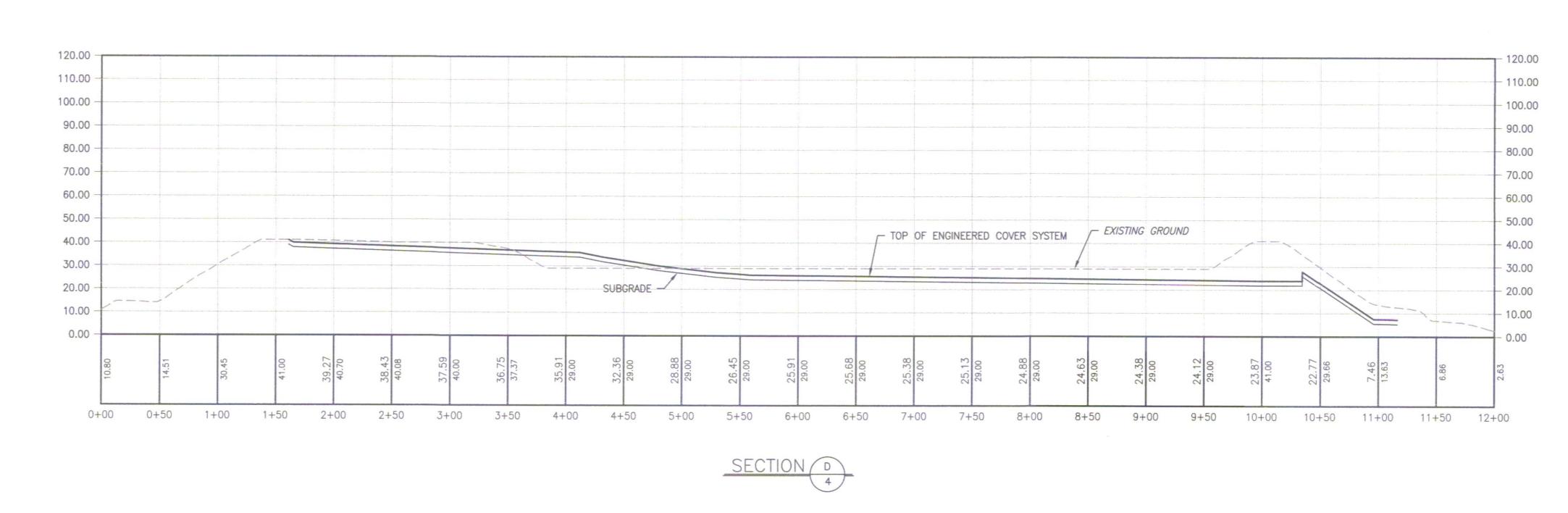
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NOTE

1. ELEVATIONS AND GRADES ARE BASED ON ESTIMATED CLOSURE CONDITIONS. FINAL ELEVATIONS MAY VARY BASED ON ACTUAL VOLUME OF CCR PLACED TO CLOSURE.

HORIZONTAL SCALE: 1" = 60'
60 0 60 120

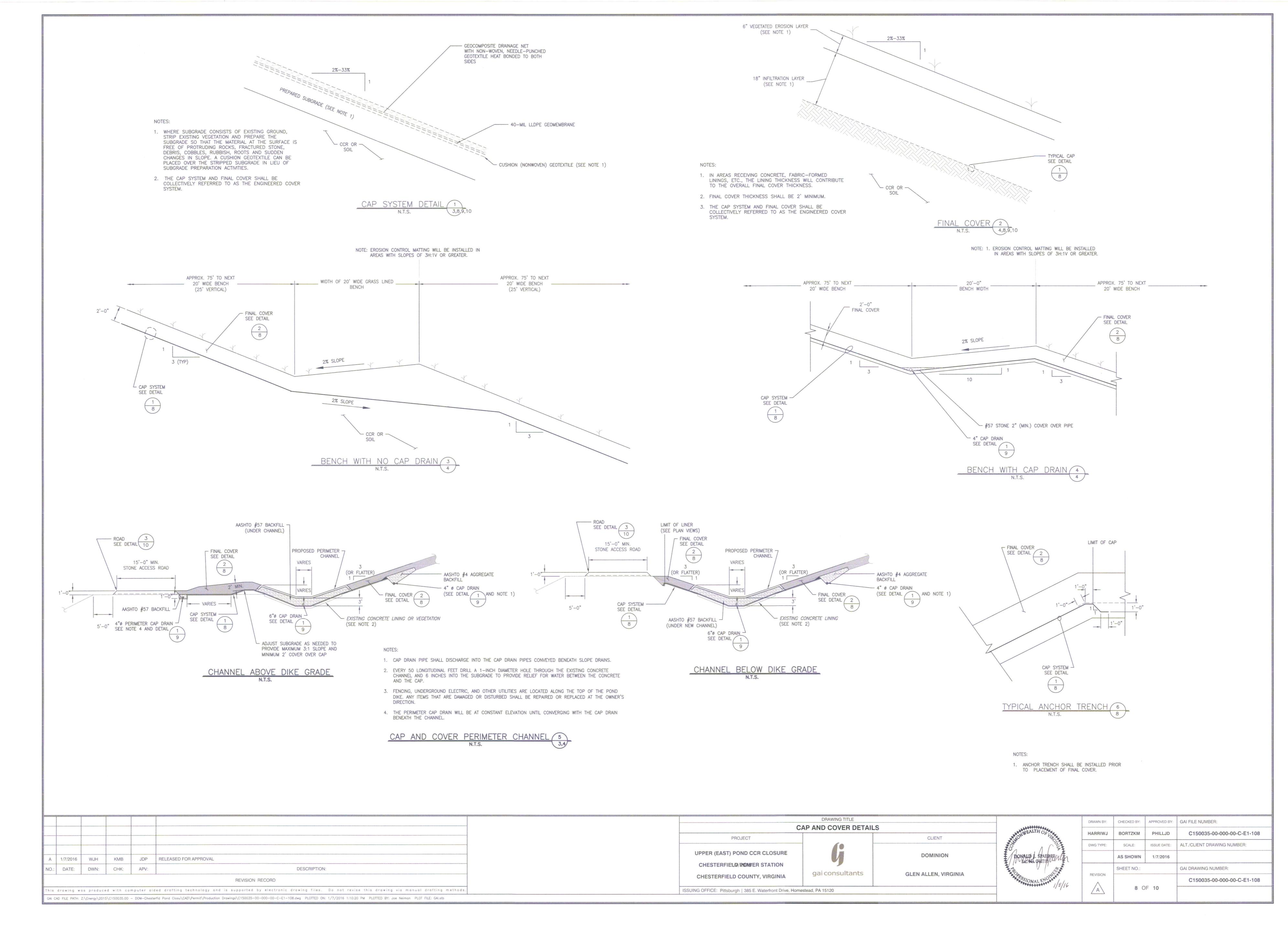
VERTICAL SCALE: 1" = 30'
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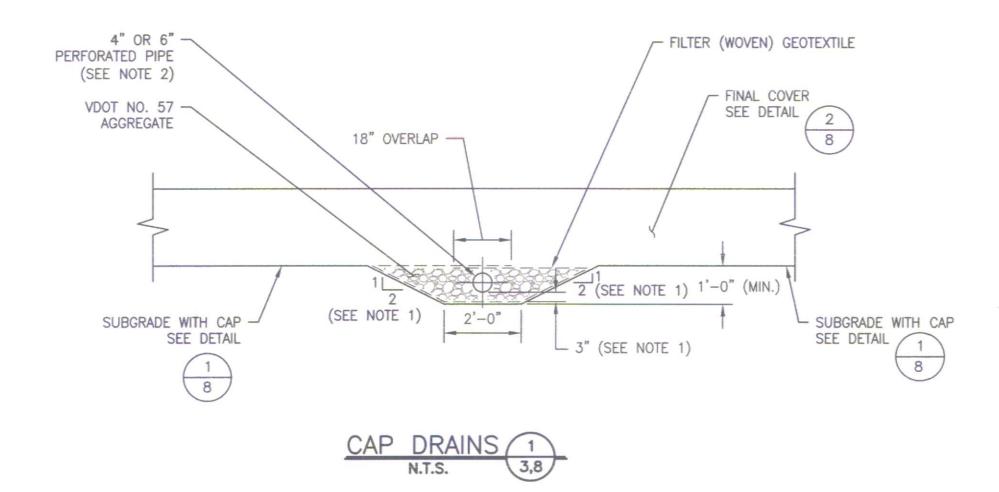
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CHESTERFIELD COUNTY, VIRGINIA gai consultants GLEN	LLEN, VIRGINIA						
ISSUING OFFICE: Pittsburgh 385 E. Waterfront Drive, Homestead, PA 15120							

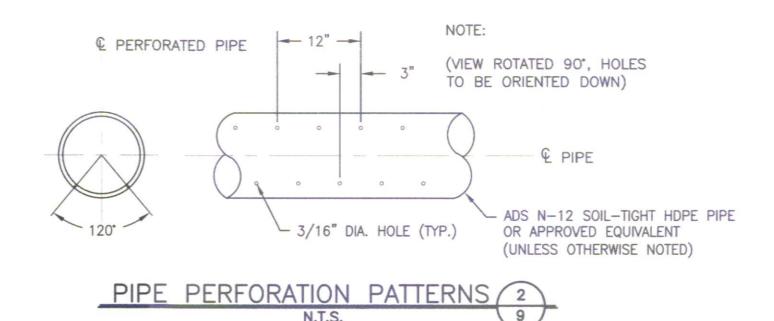
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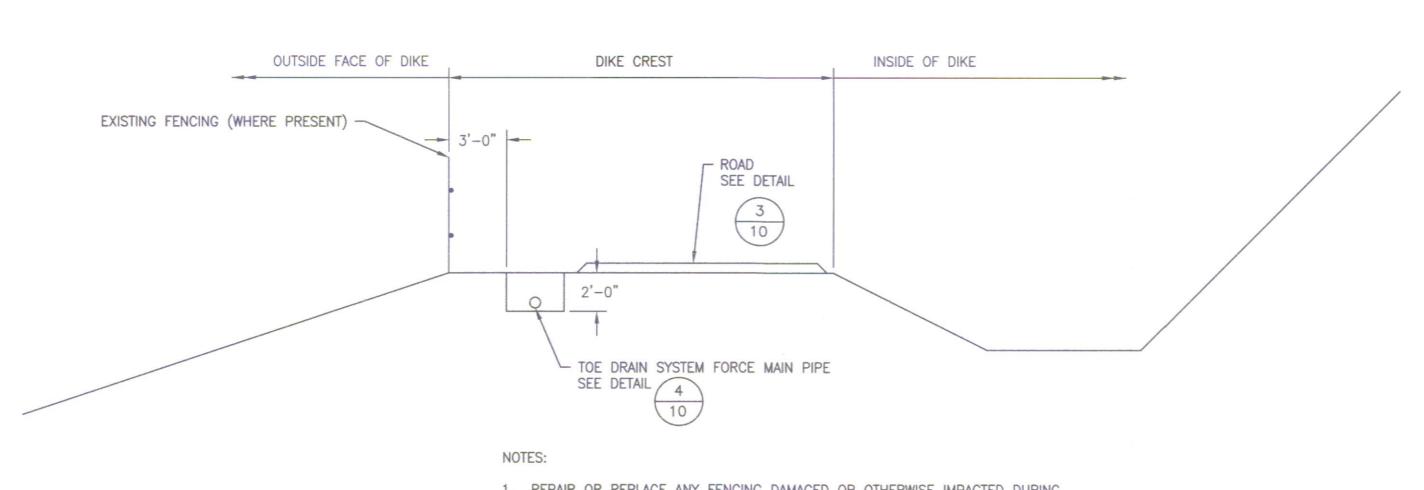
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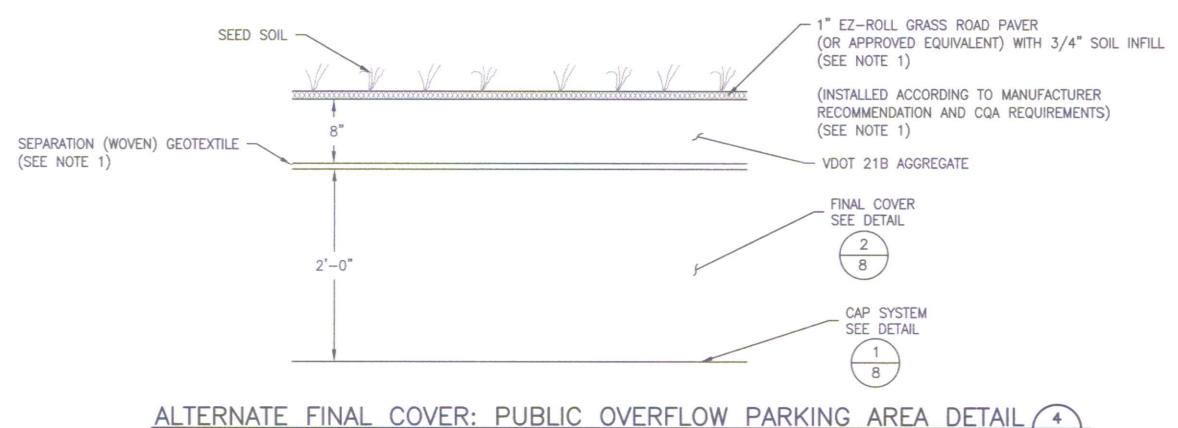
- THE TOPOGRAPHY SHOWN IS FOR CAP DRAIN LATERALS. CAP DRAINS BENEATH CHANNELS AND SLOPE DRAINS WILL BE CONSTRUCTED TO THE SAME CONFIGURATION. THE 2:1 SLOPE WILL BE EXTENDED AS NEEDED TO MEET SUBGRADE.
- 2. PIPE SHALL BE 6" UNDER ALL CHANNELS, SLOPE DRAINS, AND SPILLWAYS AND 4" AT ALL OTHER LOCATIONS UNLESS NOTED OTHERWISE. PIPE SHALL BE ADS N-12 SOIL-TIGHT HDPE PIPE OR APPROVED EQUIVALENT UNLESS OTHERWISE NOTED. CAP DRAIN SHALL BE PERFORATED ACCORDING TO DETAIL 2 UNLESS OTHERWISE NOTED.
- 3. CLEANOUTS WILL BE PROVIDED AT SELECT LOCATIONS.





REPAIR OR REPLACE ANY FENCING DAMAGED OR OTHERWISE IMPACTED DURING CONSTRUCTION.

TOE DRAIN SYSTEM FORCE MAIN LOCATION ON DIKE TOP (3)



ALTERNATE FINAL COVER: PUBLIC OVERFLOW PARKING AREA DETAIL (4)

NOTE:

- THIS DETAIL IS TO BE USED AS AN ALTERNATE FINAL COVER WHERE OVERFLOW PARKING IS TO BE UTILIZED.
- THE CAP SYSTEM AND FINAL COVER SHALL BE COLLECTIVELY REFERRED TO AS THE ENGINEERED COVER SYSTEM.

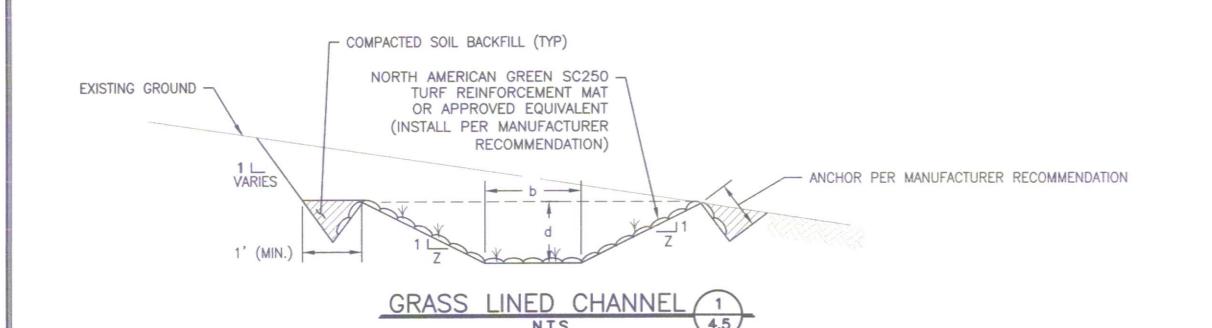
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CAP DRAIN, F	ORCE MAIN, AND PARK	ING DETAILS	
PROJECT		CLIENT	,
UPPER (EAST) POND CCR CLOSURE	G	DOMINION	
CHESTERFIELD POWER STATION CHESTERFIELD COUNTY, VIRGINIA	gai consultants	GLEN ALLEN, VIRGINIA	34

ISSUING OFFICE: Pittsburgh | 385 E. Waterfront Drive, Homestead, PA 15120

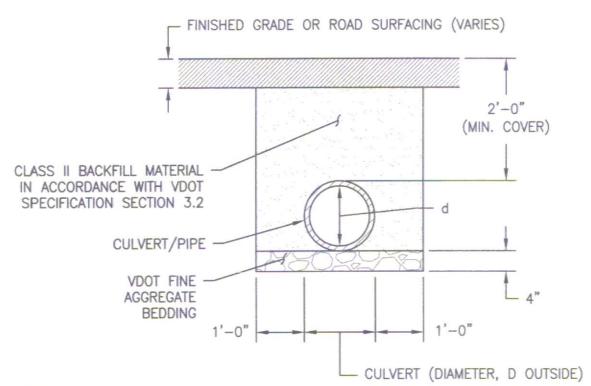
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1/9/16				



CHANNEL SCHEDULE					
CHANNEL ID	LINING	BOTTOM WIDTH, b (FT)	DEPTH, d (FT)	SIDE SLOPES, z	
NORTH 1	FABRIC-FORMED CONCRETE (4" USM)	3	2.25	3	
NORTH 2	FABRIC-FORMED CONCRETE (4" USM)	4	2.5	3	
NORTH 3	FABRIC-FORMED CONCRETE (4" USM)	5	3.25	3	
SOUTH 1	FABRIC-FORMED CONCRETE (4" USM)	3	2.5	3	
SOUTH 2	FABRIC-FORMED CONCRETE (4" USM)	3	3	3	
SOUTH 3	FABRIC-FORMED CONCRETE (4" USM)	3	3.25	3	
SOUTH 4	FABRIC-FORMED CONCRETE (4" USM)	4	3.75	3	
CENTER, USM	FABRIC-FORMED CONCRETE (6" USM)	20	2.25	3	
CENTER, GRASS	GRASS (WITH TURF REINFORCEMENT MAT)	0	2.25	38	
SPILLWAY APPROACH	FABRIC-FORMED CONCRETE (8" USM)	55	3	3	
SLOPE DRAINS	FABRIC-FORMED CONCRETE (4" USM)	2.25	1.5	3	
WEST HAUL ROAD AND EAST ACCESS ROAD	FABRIC-FORMED CONCRETE (4" USM)	2	1	3	
SEDIMENT POND DIVERSION	GRASS (WITH TURF REINFORCEMENT MAT)	5	TO GROUND SURFACE	3	
AREA 1 DIVERSION	GRASS (WITH TURF REINFORCEMENT MAT)	3	1.75	2	

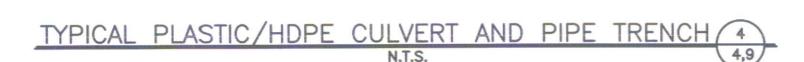
CHANNEL SCHEDULE NOTES:

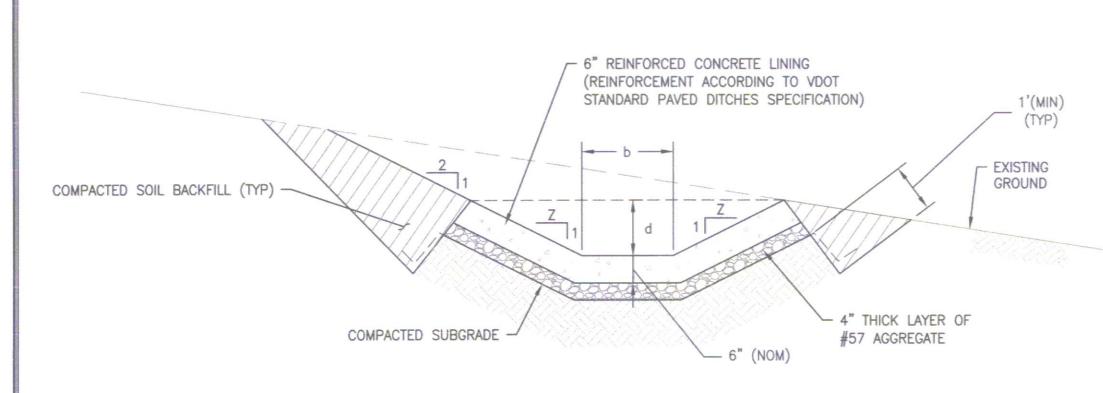
- USM = UNIFORM SECTION MAT.
- 2. ALL CHANNEL LINING PROTECTION AND DIMENSIONS SHALL BE CONSIDERED MINIMUM FINISHED DIMENSIONS WITH LINING.
- 3. LINING MATERIALS/MANUFACTURERS MAY BE SUBSTITUTED WITH AN APPROVED EQUIVALENT, WITH OWNER'S APPROVAL.
- 4. CHANNEL SIZES ARE BASED ON CLOSURE GRADING USING CURRENT STATION OPERATIONS.



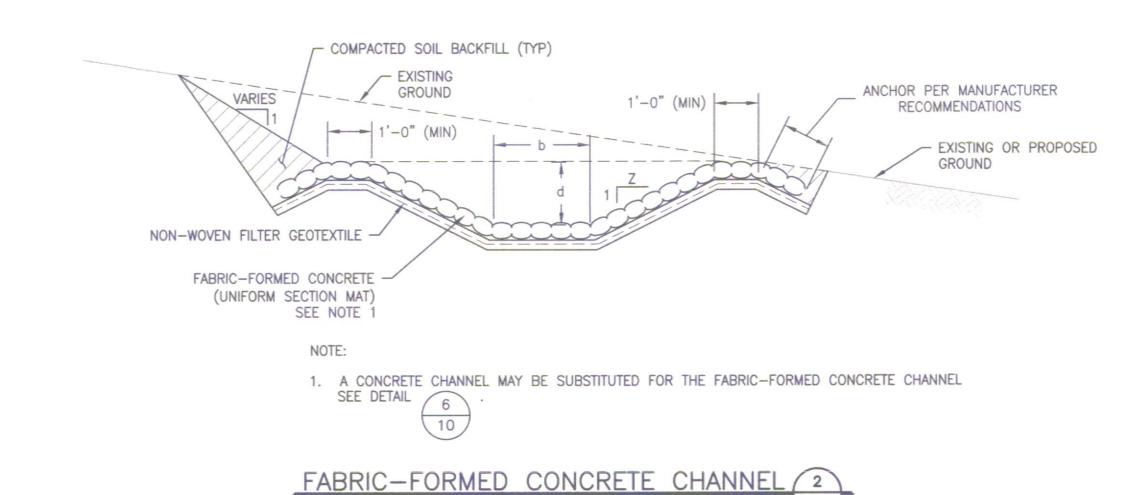
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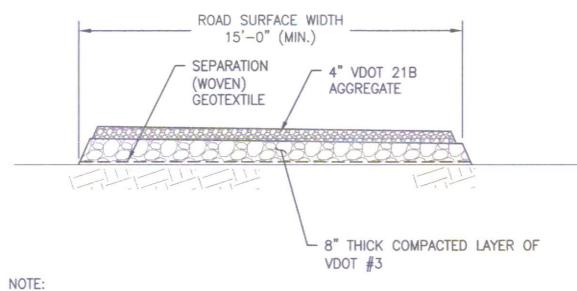
- 1. 1' MINIMUM CLEARANCE BETWEEN MULTIPLE CULVERTS AND BETWEEN PIPE AND EDGE OF TRENCH.
- ROAD SURFACING MATERIAL SHALL MEET PROJECT SPECIFICATIONS.
- 3. REFERENCES TO VDOT SPECIFICATIONS SHALL BE TO THE LATEST EDITION OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS.



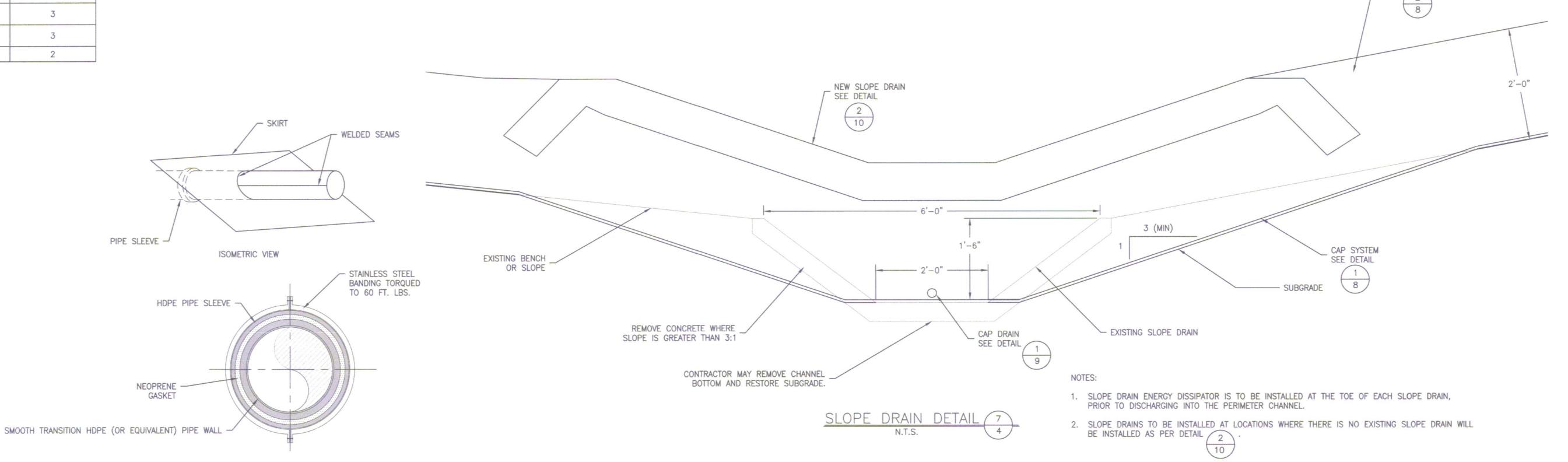








IF EXISTING ROAD MATERIAL ON AN AREA NOT RECEIVING CAP CONTAINS CCRS, REMOVE MATERIAL AND DISPOSE OF AS DIRECTED.



EXTRUSION WELD AROUND ENTIRE PIPE (ONLY WITH HDPE PIPE) 7 SEE DETAIL "A" AND PENETRATION NOTE 1 FLOW SOLID WALL -PIPE (SEE NOTE 3) GEOMEMBRANE -

DETAIL "A"

- PENETRATION NOTES: 1. USE ONE STAINLESS STEEL BAND PER PIPE PENETRATION SEAL.
- 2. SKIRT IS TO EXTEND 36 INCHES BEYOND PIPE IN ALL DIRECTIONS.
- 3. ADS N-12 PIPE WILL CONNECT WITH A SMOOTH WALL HDPE PIPE FOR FIELD WELD OF LINER TO PIPE SLEEVE. CONNECTION SHALL BE MADE WITH A FERNCO COUPLING OR APPROVED EQUIVALENT.

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PROJECT			CLIENT			
	UPPER (EAST) POND CCR CLOSURE CHESTERFIELD POWER STATION	G	DOMINION	***************************************		
	CHESTERFIELD COUNTY, VIRGINIA	gai consultants	GLEN ALLEN, VIRGINIA	44		

DRAWN BY: CHECKED BY: APPROVED BY: GAI FILE NUMBER: C150035-00-000-00-C-E1-110 HARRIWJ BORTZKM ISSUE DATE: ALT./CLIENT DRAWING NUMBER: DWG TYPE: AS SHOWN 1/7/2016 GAI DRAWING NUMBER: SHEET NO .: REVISION C150035-00-000-00-C-E1-110 10 OF 10

THE CAP SYSTEM AND FINAL COVER SHALL BE COLLECTIVELY REFERRED TO AS THE ENGINEERED COVER SYSTEM.

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his drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods GAI CAD FILE PATH: Z:\Energy\2015\C150035.00 - DOM-Chesterfld Pond Closu\CAD\Permit\Production Drawings\C150035-00-000-C-E1-110.dwg PLOTTED ON: 1/7/2016 1:26:50 PM PLOTTED BY: Joe Neiman PLOT FILE: GAI.stb

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